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## Weakfish Tagging Project 5/2006

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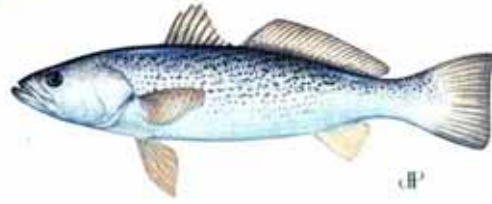
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# Weakfish tagging project



May 2006

Picture by Diane Rome Peebles from Florida Fish and Wildlife Conservation Commission

## Delaware's state fish:

The weakfish was made Delaware's state fish by the legislature in 1981. At the time, weakfish were the top recreational and commercial fish in the state. Weakfish have since declined to the point that it is debatable whether they would be named the state fish in 2006.



Mr. Avery Phillips with a 1939 Delaware fishing tournament entry 8 lb. 6 oz. weakfish.

**For more information on the Weakfish tagging project, please contact:**

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## A population in decline

The weakfish (*Cynoscion regalis*) or "trout" as they are often referred to in Delaware, are an attractive fish known for its distinctive coloration, strong fight, and fine table fare, is a major predatory fish of Mid- Atlantic bays and estuaries. Delaware Bay is an important spawning area and a center of abundance for weakfish until recently. Weakfish was Delaware's most important fish in economic terms, typically ranking first both in pounds landed commercially and among the top five landed recreationally right through the 1990s. Unfortunately, both commercial and recreational weakfish landings have plummeted since the late 1990s. Commercial landings dropped by 82% and the estimated recreational harvest by an astounding 98% from 1995 to 2004. This trend was not limited to only Delaware as coast-wide weakfish landings dropped by 78% over the same time period. The cause of the decline is not clear. Overfishing may have had a role but there are indications that weakfish survival to a size large enough to be caught by recreational or commercial fishers has decreased in recent years, perhaps due to increased predation by striped bass.

## Where are the weakfish going after they leave Delaware Bay?

Weakfish are still producing good numbers of young weakfish and there seem to be plenty of sub-legal weakfish in Delaware Bay according to Division of Fish and Wildlife trawl surveys. Thus the scarcity of legal-size weakfish is somewhat of a mystery. In an effort to determine where the weakfish are going when they leave Delaware Bay, the Division plans to start a weakfish tagging project. If enough tagged weakfish are caught and their tag return information reported, we will get a better picture of the migration patterns of Delaware Bay weakfish and we may be able to better estimate weakfish mortality rates.

## Finding a tag that will stay with the fish

Putting a tag in a weakfish is simple enough; having that tag stay in the weakfish for a year or more is difficult. Weakfish shed tags readily due to their thin skin and soft flesh. Virginia dropped weakfish from their gamefish tagging program after a 3-year trial because of a low tag reporting rate which was suspected as due to poor tag retention. The Division has run several tag retention trials in fish tanks to determine the best tag. Several different tag types with different anchor styles were tested. The best retention to date has been with a standard T-bar tag inserted below the spiny dorsal fin (see photo). T-bar tags are also among the easiest to apply so this will enable the Division to tag many young weakfish. Fishermen should keep their eyes open for these tags and follow the instructions printed on them if they are lucky enough to recapture a tagged weakfish in the future.



